

**Appendix I. Kings Beach Commercial
Core Improvement Project
Preliminary Delineation of
Wetlands and Other Waters of
the United States and USACE
Verification Letter**

Kings Beach Commercial Core Improvement Project



Preliminary Delineation of Wetlands and Other Waters of the United States

Placer County, California
03-PLA-28 KP 14.79/16.53 (PM 9.19/10.27)
EA 03-198-0C9300



November 2006



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List of Abbreviated Terms

Corps	U.S. Army Corps of Engineers
CWA	Clean Water Act
GPS	global positioning system
OHWM	ordinary high water mark
SR	State Route
USGS	U.S. Geological Survey

Preliminary Delineation of Wetlands and Other Waters of the United States

1. Summary

This report presents the results of a delineation of wetlands and other waters of the United States conducted for the Kings Beach Commercial Core Improvement Project study area in Kings Beach, California. On September 19 and 20, 2006, a Jones & Stokes botanist/wetland ecologist and a soil scientist delineated wetlands and other waters of the United States in the delineation study area to assist the Placer County Department of Public Works in determining the location and extent of areas that likely would be subject to regulation by the U.S. Army Corps of Engineers (Corps) under Section 404 of the Clean Water Act (CWA). The delineation was conducted in accordance with the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) and in compliance with the Sacramento District of the Corps' Minimum Standards for Acceptance of Preliminary Wetland Delineations (U.S. Army Corps of Engineers 2001). A total of 0.329 acre of jurisdictional wetlands and 0.390 acre of other waters of the United States were delineated, for a grand total of 0.719 acre of waters of the United States in the delineation study area. Eleven intermittent drainage ditches were observed within the delineation study area but were interpreted to be outside the scope of Corps jurisdiction under Section 404 because they appear to have been excavated in uplands for the purpose of drainage and do not appear to have replaced any previously existing natural stream features. All jurisdictional boundaries and determinations presented in this report are preliminary and subject to verification by the Corps' Sacramento District.

1.1. Contact Information

Project Proponent

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2. Site Description and Location

The delineation study area is located in eastern Placer County on the north shore of Lake Tahoe (Figure 1). It encompasses approximately 74.78 acres of residential and commercial parcels located adjacent to State Route (SR) 28 in Kings Beach (Figure 1). A list of the parcels in the study area is provided in Table 1.

The study area appears on the U.S. Geological Survey (USGS) 7.5-minute Kings Beach quadrangle in the SE ¼ of Section 13, Township 16 North, Range 17 East, and portions of the West ½ of Section 19, Township 16 North, Range 18 East, Mount Diablo Base and Meridian (Figure 1). The latitude and longitude for the approximate center of the project site are 39°14'00" north and 120°01'00" west. Slope gradients at the project site generally range from 0% to 5%, and elevations range from approximately 6,250 to 6,400 feet above mean sea level. To reach the project site from Sacramento, travel east on Interstate 80 and take SR 267 south to its junction with SR 28.

2.1. Precipitation and Growing Season

The closest National Weather Service cooperative weather station to the study area is located approximately 7.5 miles southwest of the delineation study area at an elevation of 6,350 feet above mean sea level (Western Regional Climate Center 2006) (Figure 1). Climate data from this weather station are presented here as a reasonable approximation of the temperature, precipitation, and growing season length for the delineation study area.

The mean annual precipitation is 31.88 inches, the mean annual maximum temperature is 56.1°F, and the mean annual minimum temperature is 30.6°F (Western Regional Climate Center 2006). The length of the growing season (based on 28° air temperature thresholds at a frequency of five years in 10) is approximately 130 days and typically extends from late May to early October in most years (Western Regional Climate Center 2006).

2.2. Vegetation

The delineation study area consists primarily of ponderosa pine woodland and residential and commercial developments but also contains a riparian woodland corridor along Griff Creek and ruderal areas. These communities are described below.

Ponderosa Pine Woodland

Ponderosa pine woodland occurs in the majority of the study area amid residential and commercial development. This plant community is characterized by an overstory composed mainly of ponderosa pine with lesser amounts of Jeffrey pine, incense cedar, and white fir. The shrub understory consists of manzanita and mountain rose. The herbaceous layer is composed of a mixture of grasses and forbs, including squirreltail, thickspike wheatgrass, small oniongrass, common tansy, and Eaton's aster.

Riparian Woodland

The riparian woodland community that occurs in the delineation study area exists adjacent to Griff Creek and is characterized by an overstory of mountain alder, black cottonwood, and Pacific willow. Yellow willow, American dogwood, and thimbleberry comprise the shrub

Table 1. Project Site Parcels

Placer County Assessor's Parcel Number	Area within Delineation Study Area (Acres)
090-064-001	0.29
090-064-012	0.22
090-064-013	0.15
090-064-026	0.14
090-064-027	0.29
090-067-013	0.14
090-067-014	0.14
090-067-022	0.07
090-067-023	0.07
090-067-026	0.14
090-067-029	0.18
090-071-001	0.14
090-071-002	0.14
090-071-003	0.22
090-071-005	0.16
090-071-008	0.16
090-071-017	0.29
090-071-018	0.09
090-071-019	0.21
090-071-021	0.19
090-071-022	0.09
090-071-023	0.41
090-071-025	0.07
090-071-026	0.12
090-071-028	0.28
090-071-029	0.30
090-071-030	0.55
090-071-031	0.13
090-071-033	0.28
090-071-034	0.35
090-072-001	0.07
090-072-002	0.18
090-072-003	0.11
090-072-004	0.06
090-072-006	0.24
090-072-009	0.18
090-072-016	0.08
090-072-017	0.11
090-072-018	0.03
090-072-019	0.06
090-072-023	0.05
090-072-024	0.09
090-072-026	0.43
090-072-027	0.29
090-072-028	0.43
090-072-029	0.29
090-072-030	0.33
090-074-001	0.14
090-074-002	0.86
090-074-004	0.14
090-074-005	0.07
090-074-006	0.07
090-074-007	0.14
090-074-008	0.22
090-074-009	0.29
090-074-010	0.07
090-074-012	0.07
090-074-013	0.14
090-074-014	0.07

Table 1. Continued

Placer County Assessor's Parcel Number	Area within Delineation Study Area (Acres)
090-074-018	0.29
090-074-020	0.94
090-074-021	0.04
090-074-022	0.04
090-075-001	0.03
090-075-002	0.06
090-075-009	0.07
090-075-010	0.06
090-075-014	0.39
090-075-016	0.14
090-075-017	0.24
090-075-018	0.17
090-075-019	0.11
090-075-020	0.11
090-075-025	0.21
090-080-001	0.20
090-080-002	0.21
090-080-004	0.51
090-080-005	0.12
090-080-006	0.28
090-080-007	0.62
090-080-009	0.82
090-080-017	0.95
090-080-018	0.62
090-080-022	0.36
090-080-023	0.66
090-121-010	0.29
090-121-011	0.29
090-121-013	0.14
090-121-016	0.43
090-121-017	0.14
090-121-019	0.22
090-121-023	0.58
090-121-026	0.07
090-122-001	0.43
090-122-002	0.37
090-122-004	0.15
090-122-005	0.20
090-122-010	0.09
090-122-014	0.15
090-122-017	0.18
090-122-019	0.29
090-122-021	0.31
090-122-022	0.14
090-122-023	0.21
090-122-024	0.21
090-122-025	0.14
090-122-026	0.14
090-122-027	0.14
090-122-028	0.14
090-122-030	0.14
090-122-031	0.36
090-122-033	0.11
090-122-034	0.10
090-122-035	0.06
090-122-036	0.09
090-123-001	0.23
090-123-006	0.66

Table 1. Continued

Placer County Assessor's Parcel Number	Area within Delineation Study Area (Acres)
090-123-008	0.17
090-123-009	0.16
090-123-010	0.17
090-123-011	0.16
090-123-015	0.05
090-123-016	0.13
090-123-017	0.10
090-123-018	0.06
090-123-019	0.02
090-123-021	0.08
090-123-022	0.29
090-123-023	0.30
090-123-024	0.22
090-123-025	0.04
090-123-026	0.13
090-123-027	0.10
090-124-019	0.07
090-124-020	0.07
090-125-001	0.29
090-125-019	0.07
090-125-025	0.14
090-125-026	0.07
090-126-014	0.36
090-126-017	0.11
090-126-020	0.29
090-126-021	0.18
090-126-022	0.18
090-126-024	0.29
090-126-025	0.32
090-126-032	0.10
090-126-037	0.14
090-126-038	0.36
090-126-039	0.14
090-126-040	0.14
090-133-003	0.15
090-133-005	0.36
090-133-006	0.05
090-133-007	0.26
090-133-008	0.27
090-133-009	0.16
090-133-010	0.22
090-133-011	0.17
090-133-012	0.40
090-133-015	0.51
090-133-016	0.13
090-133-018	0.26
090-134-001	0.26
090-134-002	0.17
090-134-005	0.35
090-134-006	0.17
090-134-007	0.18
090-134-008	0.27
090-134-011	0.20
090-134-017	0.33
090-134-023	0.17
090-134-024	0.37
090-134-029	0.29
090-134-030	0.32

Table 1. Continued

Placer County Assessor's Parcel Number	Area within Delineation Study Area (Acres)
090-134-034	0.08
090-134-035	0.03
090-134-039	0.18
090-134-042	0.28
090-134-043	0.20
090-134-044	0.08
090-134-045	0.08
090-134-046	0.33
090-135-030	0.08
090-135-031	0.16
090-135-032	0.08
090-135-033	0.16
090-135-034	0.16
090-135-035	0.16
090-135-036	0.17
090-135-037	0.25
090-135-042	0.09
090-142-001	0.25
090-142-002	0.32
090-142-007	0.28
090-142-023	0.76
090-142-024	0.36
090-142-025	0.15
090-142-026	0.38
090-191-017	0.14
090-191-018	0.29
090-191-023	0.22
090-191-024	0.14
090-191-028	0.07
090-191-036	0.14
090-192-001	0.06
090-192-002	0.08
090-192-003	0.10
090-192-004	0.13
090-192-008	0.18
090-192-017	0.70
090-192-021	0.16
090-192-027	0.02
090-192-030	0.38
090-192-031	0.12
090-192-034	0.06
090-192-037	0.15
090-192-038	0.13
090-192-041	0.21
090-192-053	0.37
090-192-054	0.05
090-192-055	0.10
090-192-056	0.38
090-192-057	0.44
090-221-001	0.24
090-221-002	0.55
090-221-010	0.19
090-221-011	0.17
090-221-013	0.15
090-221-014	0.11
090-221-016	0.34
090-221-018	0.10
090-221-019	0.29

Table 1. Continued

Placer County Assessor's Parcel Number	Area within Delineation Study Area (Acres)
090-221-020	0.21
090-221-021	0.10
090-222-016	0.19
090-222-017	0.14
117-180-001	0.46
117-180-003	0.32
117-180-005	1.11
117-180-006	0.16
117-180-007	0.15
117-180-009	0.50
117-180-012	0.24
117-180-027	0.79
117-180-028	0.78
117-180-036	0.23
117-180-037	0.23
117-180-038	0.23
117-180-039	0.22
117-180-050	0.19
117-180-052	0.66*
117-180-048	0.66*
117-180-047	0.66*
117-180-046	0.66*
117-180-045	0.66*
117-180-044	0.66*
117-180-043	0.66*
* This number represents a collective acreage for these parcels. Individual parcel acreages were not available from Placer County's parcel information website < http://www.placer.ca.gov/Home/Assessor/Assessment%20Inquiry/Assessment%20Inquiry%20Iframe.aspx >.	

understory, and the herbaceous layer contains long-anthered rush, mugwort, and small-fruited bulrush.

2.3. Ruderal Areas

Ruderal (i.e., disturbed) areas are located throughout the delineation study area. Ruderal areas primarily occur immediately adjacent to roads but also were observed adjacent to several of the sediment detention basins in the delineation study area. These areas typically consist of bare soil but may be vegetated with one to two species of annual grasses (i.e., quackgrass and thickspike wheatgrass).

2.4. Surface Hydrology

Griff Creek, a perennial stream that drains much of the area in and around the City of Kings Beach, originates approximately 1 mile east of Martis Peak and flows south through the western portion of the delineation study area, where it crosses under SR 28 and discharges into Lake Tahoe (Exhibit A). Other than Griff Creek, no other major drainages occur in the delineation study area, but a number of manmade, intermittent drainage ditches convey local snowmelt and stormwater runoff to Lake Tahoe via a stormwater collection system.

2.5. Soils

Soils in the delineation study area were mapped by the U.S. Soil Conservation Service during their survey of soils in the Lake Tahoe Basin (Rogers 1974). A total of four soil map units occur within the boundaries of the delineation study area (Figure 2). The general characteristics of the soils that occur within these map units are summarized in Table 2. Of the four soil map units that occur within the delineation study area, only the Beaches map unit is known to contain hydric inclusions (Natural Resources Conservation Service 1992).

Table 2. Soil Map Units in the Study Area

Soil Map Unit		Drainage	Hydric Soils ^a	Hydric Criteria ^b
Symbol ^a	Name			
JhC	Jabu stony sandy loam, moderately fine subsoil, variant, 2% to 9% slopes	Well drained	No hydric components or inclusions	N/A
Be	Beaches	Well drained	Watah (inclusion) Marla (inclusion) Tahoe, silt loam (inclusion)	4 2B3 2B2
Gr	Gravelly alluvial land	Somewhat poorly drained to poorly drained	No hydric components or inclusions	N/A
UmD	Umpa very stony sandy loam, 5% to 15% slopes	Well drained	No hydric components or inclusions	N/A
<p><i>Notes:</i></p> <p>^a Sources: Rogers 1974; Natural Resources Conservation Service 1992.</p> <p>^b The hydric soil criteria are defined as (from Natural Resources Conservation Service 1992): Hydric Criteria 2B2, 2B3, and 4:</p> <ol style="list-style-type: none"> 2. Soils in Aquic suborders, Aquic subgroups, Albolls suborder, Salorthids great group, Pell great groups of Vertisols, Pachic subgroups, or Cumulic subgroups that are: <ol style="list-style-type: none"> B. poorly drained or very poorly drained and have: <ol style="list-style-type: none"> 2) a frequently occurring water table at less than 0.5 feet from the surface for a significant period (usually more than 2 weeks) during the growing season if permeability is equal to or greater than 6.0 in/hr in any layer within 20 inches. 3) a frequently occurring water table at less than 1.0 feet from the surface for a significant period (usually more than 2 weeks) during the growing season if permeability is less than 6.0 in/hr in any layer within 20 inches. 4. Soils that are frequently flooded for long duration or very long duration during the growing season. 				

3. Methods

The following information was reviewed for this delineation:

- Kings Beach USGS 7.5-minute topographic map;
- aerial photographs of the delineation study area (flown by Majors in October 1999);
- soil survey of the Tahoe Basin (Rogers 1974);
- wetland delineation reports for portions of the delineation study area completed by Harding ESE (2001) and Mactec Engineering and Consulting (2003, 2006).

On September 19 and 20, 2006, a Jones & Stokes botanist/wetland ecologist and a soil scientist delineated wetlands and other waters of the United States located within the boundaries of the delineation study area. The delineation was conducted in accordance with the routine onsite determination method described in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) and in compliance with the Sacramento District of the Corps' *Minimum Standards for Acceptance of Preliminary Wetland Delineations* (U.S. Army Corps of Engineers 2001). Vegetation, soil, and hydrology data collected at eight data points during the delineation were recorded on wetland determination data sheets, which are located in Appendix A.

The scientific names of plants observed during the delineation or mentioned in the text, as well as their wetland indicator status, are provided in Appendix B. Scientific names follow *The Jepson Manual* (Hickman 1993), as updated by the Jepson Online Interchange, an online database maintained by the University of California and the Jepson Herbaria. The wetland indicator status of each species listed was obtained from Reed (1988).

A resource-grade global positioning system (GPS) unit was used to record the location of jurisdictional boundaries, data points, and other pertinent features wherever possible. The GPS data were downloaded and corrected in the office using the nearest available base-station data. The acreage of each feature was calculated in the ArcGIS program. Data were subsequently overlaid onto the aerial photo base to prepare the delineation map.

4. Results

A total of 0.719 acre of waters of the United States, consisting of 0.329 acre of wetlands and 0.390 acre of other waters of the United States, were identified within the boundaries of the delineation study area (Table 3). Intermittent drainage ditches also were observed in the delineation study area but were interpreted to be outside the scope of Corps jurisdiction under Section 404 of the CWA. The general characteristics and interpreted jurisdictional status of each feature mapped within the delineation study area are described below. Representative photographs of the wetlands and other waters observed within the delineation study area are located in Appendix C.

Table 3. Wetlands and Other Waters of the United States Found in the Delineation Study Area

Feature Type	Acres
Depressional Wetlands	0.329
Perennial Stream (Griff Creek)	0.204
Lake Tahoe	0.186
Total	0.719

4.1. Wetlands

Depressional Wetlands

A total of seven depressional wetlands were found within the boundaries of the delineation study area (Exhibit A). Five of these wetlands (DW-1 to DW-5) are sediment detention basins that receive most of their hydrologic inputs from drainage ditches and that drain via corrugated metal standpipe drains. The sixth depressional wetland (DW-6) is a roadside depression that retains enough water, primarily in the form of surface runoff, to support hydrophytic vegetation. The seventh depressional wetland (DW-7) is located immediately adjacent to Lake Tahoe and receives water primarily via a culvert at its north end.

Hydrophytic plant species commonly observed in the depressional wetlands were big-leaf sedge, fewflower spikerush, American bulrush, Baltic rush, iris-leaved rush, long-anthered rush, yellow willow, and Mexican rush.

Depressional wetlands in the delineation study area were interpreted to have wetland hydrology based on observed drainage patterns and the presence of saturated soil. The soils observed in these depressional wetlands were determined to be hydric based on a low-chroma matrix (≤ 1) or, in areas where the soil had been disturbed recently, the presence of obligate hydrophytes and primary indicators of wetland hydrology (Appendix A, data sheets DP-1, DP-3, DP-5, and DP-7).

Wetland Boundaries and Jurisdictional Status

All of the depressional wetlands mapped within the study area support hydrophytic vegetation, contain hydric soils, and exhibit a positive indicator of wetland hydrology (Appendix A, data sheets DP-1, DP-3, DP-5, and DP-7). Accordingly, they all meet the definition of a wetland as described in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratories 1987). Surrounding upland areas lack positive indicators of one or more of these parameters (Appendix A, data sheets DP-2, DP-4, DP-6, and DP-8).

Water that spills out of the sediment detention basins (DW-1 to DW-5) enters the stormwater collection system and appears to end up in Lake Tahoe, a navigable water of the United States. When water overflows from DW-6, it appears to flow into Griff Creek. DW-7 is located on the shore of the lake, so when it overflows, the water spills directly into Lake Tahoe.

Based on these apparent hydrologic connections to Lake Tahoe, it is concluded that all of the depressional wetlands in the delineation study area are within the scope of Corps jurisdiction under Section 404 of the CWA.

4.2. Other Waters of the United States

Perennial Stream

Griff Creek is a perennial stream that begins approximately 1 mile east of Martis Peak and flows south through the western portion of the delineation study area (Exhibit A). The jurisdictional width (i.e., the distance between opposing ordinary high water marks [OHWMs]) of the reach that flows through the delineation study area ranges from 3 to 30 feet (Exhibit A). The OHWM was identified based on the geomorphic characteristics of the stream channel (namely shelving). The reach supports a narrow band of riparian trees and shrubs that are primarily located above the OHWM.

Jurisdictional Status

Griff Creek is hydrologically connected to Lake Tahoe, a navigable water of the United States. As such, it is concluded that Griff Creek falls within the scope of Corps jurisdiction under Section 404 of the CWA.

Lake Tahoe

Lake Tahoe is a navigable water of the United States and falls within the scope of Corps jurisdiction under Section 404 of the CWA. In the absence of adjacent wetlands, the limit of Corps jurisdiction over Lake Tahoe is the OHWM, which has been set at an elevation of 6,229.10 feet above mean sea level by the Corps' Sacramento District (U.S. Army Corps of Engineers 2005). Using this OHWM elevation, Jones & Stokes calculated that the project area includes 0.186 acre of jurisdictional Lake Tahoe (Exhibit A).

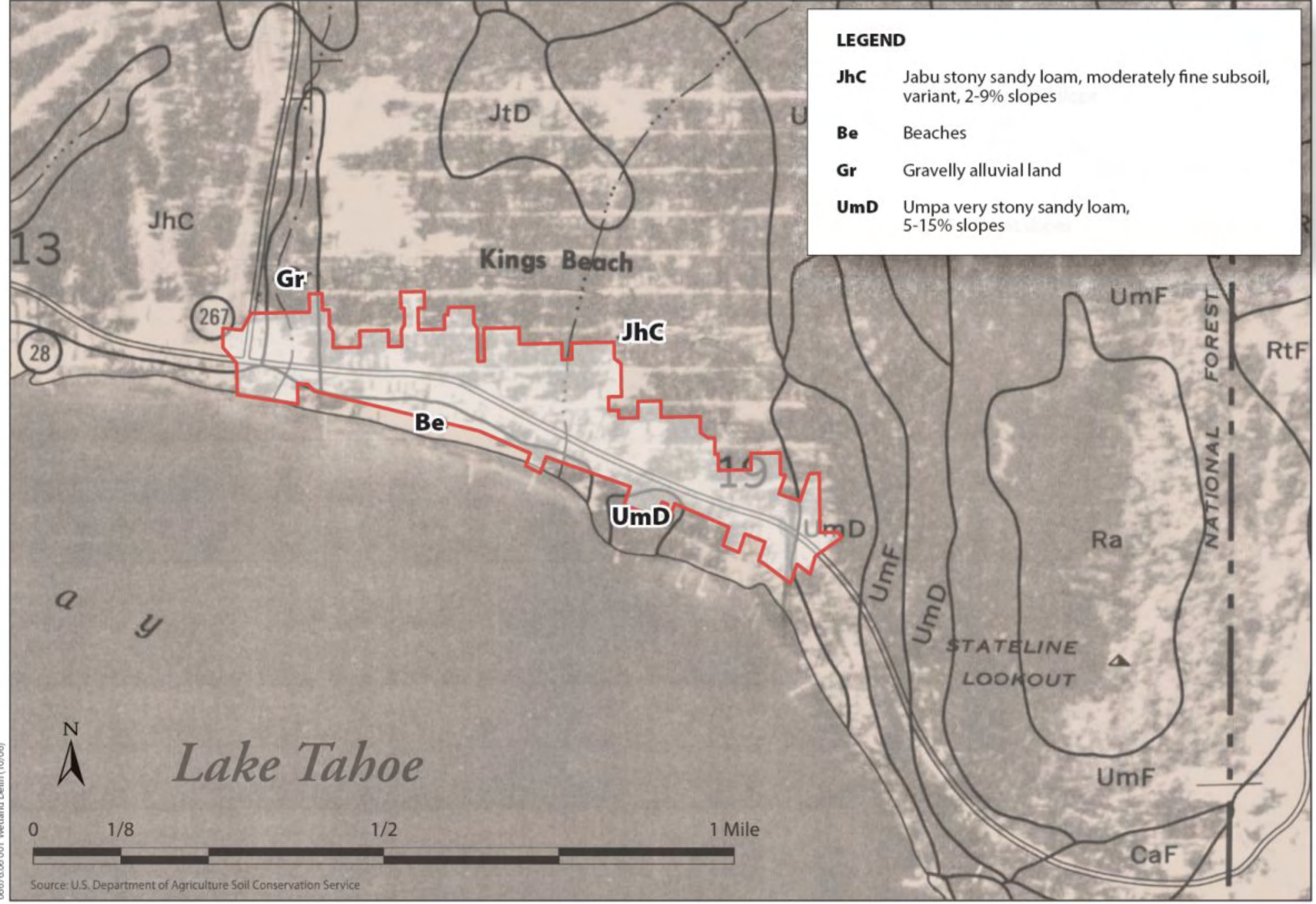
Nonjurisdictional Drainage Ditches

A number of manmade drainage ditches were observed within the boundaries of the delineation study area (Exhibit A). The ditches appear to flow intermittently during periods of snowmelt and intense rainfall and are either unvegetated or are vegetated with upland grasses such as squirreltail, quackgrass, thickspike wheatgrass, and tall oatgrass. Although water conveyed by these drainage ditches appears to discharge into Lake Tahoe via an underground stormwater collection system, they appear to have been excavated in uplands for drainage purposes and do not appear to have replaced any previously existing natural stream features. As such, it is concluded that these intermittent drainage ditches are outside the scope of Corps jurisdiction under Section 404 of the CWA.

5. References Cited

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06676.06.001 Wetland Delin (10/06)

Figure 2
Soils Survey Map

Exhibit A


Preliminary Delineation of Wetlands
and Other Waters of the United
States

EXHIBIT A



PRELIMINARY DELINEATION OF WETLANDS AND OTHER WATERS OF THE UNITED STATES KINGS BEACH COMMERCIAL CORE IMPROVEMENT PROJECT PLACER COUNTY, CALIFORNIA

OCTOBER 2006

WETLANDS AREA (ACRES)

	DEPRESSIONAL WETLAND	0.329	
DW-1	0.057	DW-5	0.002
DW-2	0.099	DW-6	0.002
DW-3	0.092	DW-7	0.001
DW-4	0.068		

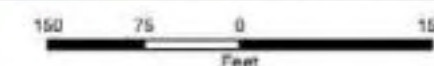
OTHER WATERS OF THE U.S.

	PERENNIAL STREAM (GRIFF CREEK)	0.204
	SP-1a	0.059
	SP-1b	0.145
	LAKE TAHOE	0.186
	(based on OHWM of 1858.623 m NGVD)	

WETLANDS TOTAL	0.329
OTHER WATERS TOTAL	0.390
TOTAL WATERS MAPPED	0.719

	NON-JURISDICTIONAL INTERMITTENT DRAINAGE DITCH
	WETLAND FEATURE OUTSIDE OF DELINEATION AREA
	DATA POINT
	DETENTION BASIN DRAIN
	CULVERT
	STORM DRAIN INLET
	DELINEATION AREA BOUNDARY
DELINEATION AREA (ACRES)	74.73

Aerial Photo Source: Majors, October 1999



DELINATED BY: C. VORST & J. COOK		SEPTEMBER 2006
DRAWN BY: L. DOUGLAS		SEPTEMBER 2006
VERIFIED BY: TBD		TBD
U.S. ARMY CORPS OF ENGINEERS REGULATORY FILE # TBD		
REVISION	BY	DATE

Prepared By:

Jones & Stokes

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Prepared For:

Placer County Department of Public Works
Pioneer Commerce Center
10025 Pioneer Trail, Suite 100
Truckee, CA 96161
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LAKE TAHOE

EXHIBIT A



PRELIMINARY DELINEATION OF WETLANDS AND OTHER WATERS OF THE UNITED STATES KINGS BEACH COMMERCIAL CORE IMPROVEMENT PROJECT PLACER COUNTY, CALIFORNIA

OCTOBER 2006

WETLANDS AREA (ACRES)

	DEPRESSIONAL WETLAND	0.329	
DW-1	0.057	DW-5	0.002
DW-2	0.099	DW-6	0.002
DW-3	0.082	DW-7	0.001
DW-4	0.086		

OTHER WATERS OF THE U.S.

	PERENNIAL STREAM (GRIFF CREEK)	0.204
	SP-1a	0.059
	SP-1b	0.145
	LAKE TAHOE	0.186
	(based on OHWM of 1898 629 m NGVD)	

WETLANDS TOTAL	0.329
OTHER WATERS TOTAL	0.390
TOTAL WATERS MAPPED	0.719

NON-JURISDICTIONAL INTERMITTENT DRAINAGE DITCH

WETLAND FEATURE OUTSIDE OF DELINEATION AREA

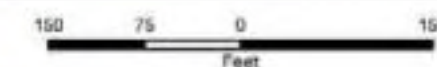
DATA POINT DETENTION BASIN DRAIN

CULVERT STORM DRAIN INLET

DELINEATION AREA BOUNDARY

DELINEATION AREA (ACRES) 74.78

Aerial Photo Source: Majors, October 1999



DELINATED BY: C. VORST & J. COOK		SEPTEMBER 2006
DRAWN BY: L. DOUGLAS		SEPTEMBER 2006
VERIFIED BY: TBD		TBD
U.S. ARMY CORPS OF ENGINEERS REGULATORY FILE # TBD		
REVISION	BY	DATE

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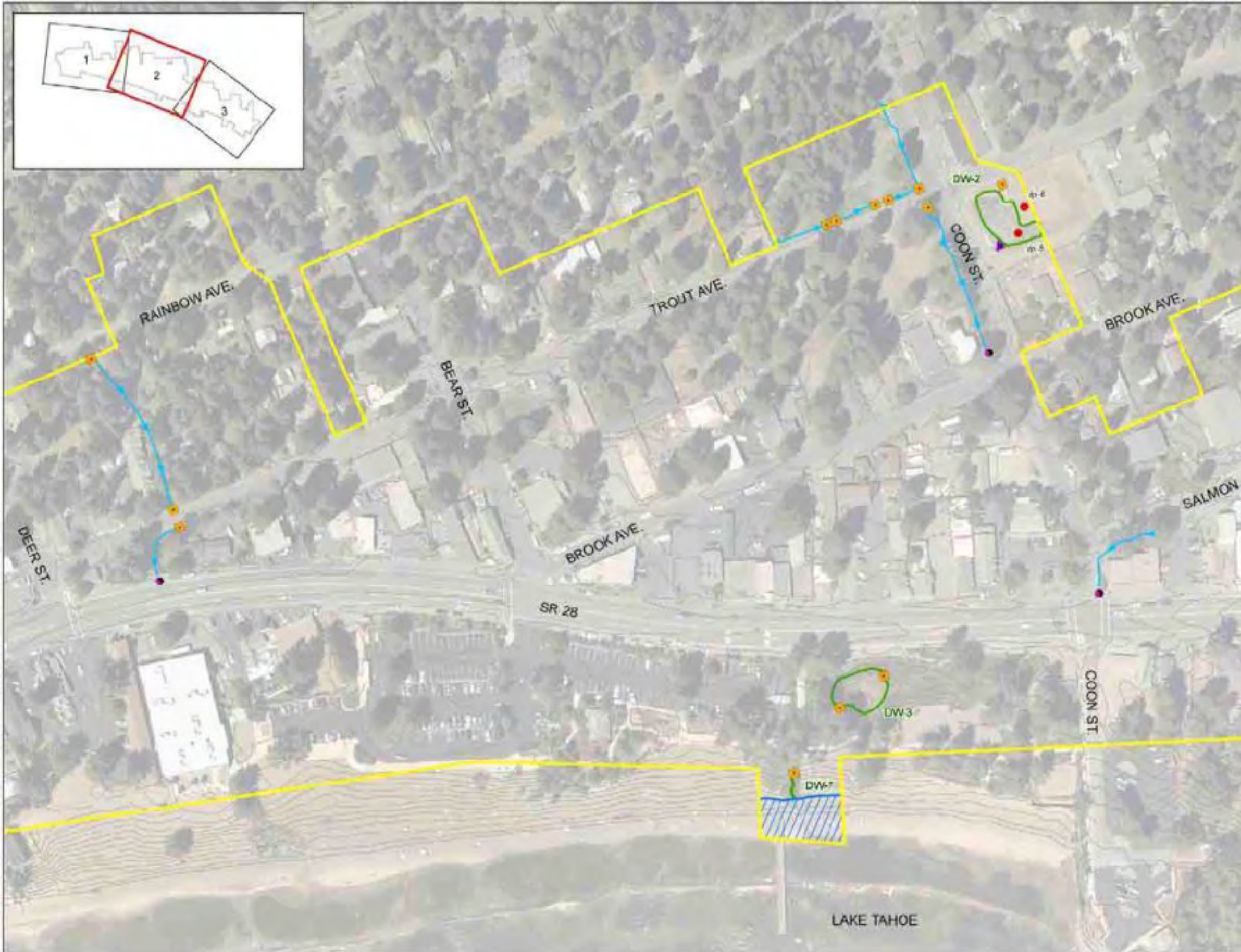



EXHIBIT A



PRELIMINARY DELINEATION OF WETLANDS AND OTHER WATERS OF THE UNITED STATES KINGS BEACH COMMERCIAL CORE IMPROVEMENT PROJECT PLACER COUNTY, CALIFORNIA

OCTOBER 2006








WETLANDS AREA (ACRES)

	DEPRESSIONAL WETLAND	0.329	
DW-1	0.097	DW-5	0.002
DW-2	0.099	DW-6	0.002
DW-3	0.092	DW-7	0.001
DW-4	0.088		

OTHER WATERS OF THE U.S.

	PERENNIAL STREAM (GRIFF CREEK)	0.204
	SP-1a	0.059
	SP-1b	0.145
	LAKE TAHOE	0.186
	(based on OHWM of 1898.629 m NGVD)	

WETLANDS TOTAL	0.329
OTHER WATERS TOTAL	0.390
TOTAL WATERS MAPPED	0.719

-  NON-JURISDICTIONAL INTERMITTENT DRAINAGE DITCH
-  WETLAND FEATURE OUTSIDE OF DELINEATION AREA
-  DATA POINT
-  DETENTION BASIN DRAIN
-  CULVERT
-  STORM DRAIN INLET
-  DELINEATION AREA BOUNDARY

DELINEATION AREA (ACRES) 74.73

Aerial Photo Source: Majors, October 1999



DELINATED BY: C. VOIGT & J. COOK		SEPTEMBER 2006
DRAWN BY: L. DOUGLAS		SEPTEMBER 2006
VERIFIED BY: TBD		TBD
U.S. ARMY CORPS OF ENGINEERS REGULATORY FILE # TBD		
REVISION	BY	DATE

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Appendix A Data Sheets

DATA FORM
ROUTINE WETLAND DETERMINATION

Project/Site:	Kings Beach Commercial Core Improvement Project	State:	California
Applicant/Owner:	Placer County Department of Public Works	County:	Placer
Investigator(s):	C. Voigt, J. Cook	S/T/R	13/16N/17E
Date:	09/19/06		
Do normal circumstances exist on the site?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Community ID:	Depressional Wetland
Is the site significantly disturbed (atypical situation)?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	Transect ID:	DW-1
Is the area a potential problem area?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	Plot ID:	DP-1
(If needed, explain below)			

VEGETATION

Dominant Plant Species	Strata	% Rel. Cover	Indicator	Associate Plant Species	Strata	% Rel. Cover	Indicator
<i>Juncus xiphioides</i>	H	50	OBL				
<i>Carex amplifolia</i>	H	50	OBL				
Percent of dominants that are OBL, FACW, or FAC (excluding FAC-):				100%	Total vegetation cover		
<input type="checkbox"/> Morphological Adaptations <input type="checkbox"/> Physiological/Reproductive Adaptations <input type="checkbox"/> Visual Observation of Plant Species Growing in Areas of Prolonged Inundation/Saturation				<input type="checkbox"/> Personal Knowledge of Regional Plant Communities <input type="checkbox"/> Technical Literature <input type="checkbox"/> Other (explain below)			
Hydrophytic Vegetation Present?				<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			
Remarks:							

HYDROLOGY

Is it the growing season?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
Based On:	<input type="checkbox"/> Soil Temp (record)		
	<input checked="" type="checkbox"/> Other (explain)	data from WRCC (2006)	
Typical length:	130 Days	5% =	6.5 days
Recorded Data (describe below):			
<input type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> None Available			
Field Observations:			
Depth of Surface Water:	none	inches	
Depth to Standing Water in Pit:	>12	inches	
Depth to Saturated Soil:	>12	inches	
Wetland Hydrology Present?			
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			
Remarks:			
The soil was wet throughout but not saturated, likely as the result of recent sprinkler irrigation.			

Wetland Hydrology Indicators:

Primary Indicators:

- ☐ Inundated
- ☐ Saturated Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☒ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):

- ☐ Oxidized Rhizospheres in Upper 12 Inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (explain below)

SOILS

Plot ID: DP-1

Map Unit Name (series and phase): <u>Jabu stony sandy loam, mod. fine subsoil, variant, 2-9% slopes</u>					Drainage Class: <u>Well-drained</u>			
Taxonomy (subgroup): <u>Ultic Haploxeraalfs</u>					Field observations confirm mapped type? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO			
Is data point located within a hydric inclusion? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO								
Profile Description								
Horizon	Depth (inches)	Texture	Structure	Matrix Color (moist)	Redoximorphic Features			Other
					Abundance, Size, Contrast	Type, location	Color (moist)	
	0-1	sil		10YR 3/2	none	---	---	
	1-10	sl		10YR 3/4	none	---	---	
	10-12	xgrsl		10YR 3/4-4/1	none	---	---	***
Hydric Soil Indicators (check all that apply):								
<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Reducing Conditions (α , α^1 dipyrldyl test) <input checked="" type="checkbox"/> Gleyed or Low-Chroma (≤ 1) matrix <input type="checkbox"/> Matrix Chroma ≤ 2 with Redoximorphic Concentrations and/or Depletions					<input type="checkbox"/> Mn or Fe Concretions or Nodules <input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on National/Local Hydric Soils List <input type="checkbox"/> Other (explain below)			
Hydric Soils Present? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO								
Remarks: Shovel refusal was experienced at a depth of 12" due to the extremely gravelly soil. ***The soil horizon observed from 10-12" was a variegated matrix consisting of approximately 50% 10YR 3/4 extremely gravelly sandy loam and approximately 50% 10YR 4/1 extremely gravelly sandy loam. As mentioned under 'Hydrology', soil was wet throughout but not saturated.								

WETLAND DETERMINATION :

Hydrophytic vegetation present?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
Wetland hydrology present?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
Hydric soils present?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Is the sampling point within a wetland? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
Remarks: Data point is located within a sediment detention basin.		

Texture and Rock Fragment Content

Texture	Rock Fragments
cos - coarse sand	vfs - very fine sandy loam
s - sand	l - loam
fs - fine sand	sil - silt loam
vfs - very fine sand	si - silt
lcos - loamy coarse sand	scl - sandy clay loam
ls - loamy sand	cl - clay loam
lfs - loamy fine sand	sicl - silty clay loam
lvfs - loamy very fine sand	sc - sandy clay
cosl - coarse sandy loam	sic - silty clay
sl - sandy loam	c - clay
fs - fine sandy loam	

Redoximorphic Feature Morphology

Abundance	Type
f - few	Fe-x - iron concentration (soft mass)
c - common	Fe-nc - iron nodule or concretion
m - many	Mn-x - manganese concentration (soft mass)
	Mn-nc - manganese nodule or concretion
	d - depletion
Size	Location
1 - fine (<2mm)	mat - soil matrix
2 - medium 2-5mm)	ped - ped surface
3 - coarse (5-20mm)	por - soil pores
4 - very coarse (20-76mm)	otr - other
5 - extremely coarse (>76mm)	
Contrast	
f - faint	
d - distinct	
p - prominent	

Project/Site:	Kings Beach Commercial Core Improvement Project	State:	California
Applicant/Owner:	Placer County Department of Public Works	County:	Placer
Investigator(s):	C. Voigt, J. Cook	S/T/R	13/16N/17E
Date:	09/19/06		
Do normal circumstances exist on the site?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Community ID:	Grassland
Is the site significantly disturbed (atypical situation)?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	Transect ID:	DW-1
Is the area a potential problem area?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	Plot ID:	DP-2
(If needed, explain below)			

VEGETATION

Dominant Plant Species	Strata	% Rel. Cover	Indicator	Associate Plant Species	Strata	% Rel. Cover	Indicator
<i>Populus tremuloides</i>	T	40	FAC+				
<i>Cornus sericea</i>	S	20	FACW				
<i>Lupinus latifolius</i>	H	20	NL				
<i>Alnus incana ssp. tenuifolia</i>	T	20	NI				

Percent of dominants that are OBL, FACW, or FAC (excluding FAC-): 50% Total vegetation cover 75 %

<input type="checkbox"/> Morphological Adaptations	<input type="checkbox"/> Personal Knowledge of Regional Plant Communities
<input type="checkbox"/> Physiological/Reproductive Adaptations	<input type="checkbox"/> Technical Literature
<input type="checkbox"/> Visual Observation of Plant Species Growing in Areas of Prolonged Inundation/Saturation	<input type="checkbox"/> Other (explain below)

Hydrophytic Vegetation Present? ☐ YES ☒ NO

Remarks:

HYDROLOGY

Is it the growing season? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands
Based On: <input type="checkbox"/> Soil Temp (record) <input checked="" type="checkbox"/> Other (explain) <u>data from WRCC (2006)</u>	
Typical length: <u>130</u> Days 5% = <u>6.5</u> days	
Recorded Data (describe below): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> None Available	Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Rhizospheres in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain below)
Field Observations: Depth of Surface Water: <u>none</u> inches Depth to Standing Water in Pit: <u>>12</u> inches Depth to Saturated Soil: <u>>12</u> inches	
Wetland Hydrology Present? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
Remarks:	

SOILS

Plot ID: DP-2

Map Unit Name (series and phase): <u>Jabu stony sandy loam, mod. fine subsoil, variant, 2-9% slopes</u>					Drainage Class: <u>Well-drained</u>			
Taxonomy (subgroup): <u>Ultic Haploxeraalfs</u>					Field observations confirm mapped type? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			
Is data point located within a hydric inclusion? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO								
Profile Description								
Horizon	Depth (inches)	Texture	Structure	Matrix Color (moist)	Redoximorphic Features			Other
					Abundance, Size, Contrast	Type, location	Color (moist)	
	0-12	sl		10YR 3/3	none	---	---	

Hydric Soil Indicators (check all that apply):

<input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Reducing Conditions (α , α^1 dipyrityl test) <input type="checkbox"/> Gleyed or Low-Chroma (≤ 1) matrix <input type="checkbox"/> Matrix Chroma ≤ 2 with Redoximorphic Concentrations and/or Depletions	<input type="checkbox"/> Mn or Fe Concretions or Nodules <input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on National/Local Hydric Soils List <input checked="" type="checkbox"/> Other (explain below)
--	--

Hydric Soils Present? ☐ YES ☒ NO

Remarks:
Shovel refusal at a depth of 12" due to cobbles.

WETLAND DETERMINATION :

Hydrophytic vegetation present?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
Wetland hydrology present?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
Hydric soils present?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	Is the sampling point within a wetland? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
Remarks: Data point is located on a narrow mound that extends into the sediment detention basin.		

Texture and Rock Fragment Content

Texture	Rock Fragments
cos - coarse sand	vfs1 - very fine sandy loam
s - sand	l - loam
fs - fine sand	sil - silt loam
vfs - very fine sand	si - silt
lcos - loamy coarse sand	scl - sandy clay loam
ls - loamy sand	cl - clay loam
lfs - loamy fine sand	sicl - silty clay loam
lvfs - loamy very fine sand	sc - sandy clay
cosl - coarse sandy loam	sic - silty clay
sl - sandy loam	c - clay
fs1 - fine sandy loam	

Redoximorphic Feature Morphology

Abundance	Type
f - few	Fe-x - iron concentration (soft mass)
c - common	Fe-nc - iron nodule or concretion
m - many	Mn-x - manganese concentration (soft mass)
	Mn-nc - manganese nodule or concretion
	d - depletion
Size	Location
1 - fine (<2mm)	mat - soil matrix
2 - medium 2-5mm)	ped - ped surface
3 - coarse (5-20mm)	por - soil pores
4 - very coarse (20-76mm)	otr - other
5 - extremely coarse (>76mm)	
Contrast	
f - faint	
d - distinct	
p - prominent	

DATA FORM
ROUTINE WETLAND DETERMINATION

Project/Site:	Kings Beach Commercial Core Improvement Project	State:	California
Applicant/Owner:	Placer County Department of Public Works	County:	Placer
Investigator(s):	C. Voigt, J. Cook	S/T/R	19/16N/18E
Date:	09/19/06		
Do normal circumstances exist on the site?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Community ID:	Depressional Wetland
Is the site significantly disturbed (atypical situation)?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	Transect ID:	DW-6
Is the area a potential problem area?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	Plot ID:	DP-3
(If needed, explain below)			

VEGETATION

Dominant Plant Species	Strata	% Rel. Cover	Indicator	Associate Plant Species	Strata	% Rel. Cover	Indicator
<i>Juncus mexicanus</i>	H	75	FACW	<i>Tanacetum vulgare</i>	H	5	NL
<i>Carex amplifolia</i>	H	20	OBL				

Percent of dominants that are OBL, FACW, or FAC (excluding FAC-): 100% Total vegetation cover 75 %

<input type="checkbox"/> Morphological Adaptations	<input type="checkbox"/> Personal Knowledge of Regional Plant Communities
<input type="checkbox"/> Physiological/Reproductive Adaptations	<input type="checkbox"/> Technical Literature
<input type="checkbox"/> Visual Observation of Plant Species Growing in Areas of Prolonged Inundation/Saturation	<input type="checkbox"/> Other (explain below)

Hydrophytic Vegetation Present? ☒ YES ☐ NO

Remarks:

HYDROLOGY

Is it the growing season? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands
Based On: <input type="checkbox"/> Soil Temp (record) <input checked="" type="checkbox"/> Other (explain) <u>data from WRCC (2006)</u>	
Typical length: <u>130</u> Days 5% = <u>6.5</u> days	
Recorded Data (describe below): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> None Available	Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Rhizospheres in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain below)
Field Observations: Depth of Surface Water: <u>none</u> inches Depth to Standing Water in Pit: <u>>13</u> inches Depth to Saturated Soil: <u>>13</u> inches	
Wetland Hydrology Present? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
Remarks: Manmade bank of cobbles is present along the north side of the roadside drainage ditch but on the south side of the ditch (closest to the road) the bank is less well defined.	

SOILS

Plot ID: DP-3

Map Unit Name (series and phase): <u>Jabu stony sandy loam, mod. fine subsoil, variant, 2-9% slopes</u>					Drainage Class: <u>Well-drained</u>			
Taxonomy (subgroup): <u>Ultic Haploxeraalfs</u>					Field observations confirm mapped type? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO			
Is data point located within a hydric inclusion? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO								
Profile Description								
Horizon	Depth (inches)	Texture	Structure	Matrix Color (moist)	Redoximorphic Features			Other
					Abundance, Size, Contrast	Type, location	Color (moist)	
	0-13	sl		10YR 3/1	none	---	---	

Hydric Soil Indicators (check all that apply):	
<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Reducing Conditions (α , α^1 dipyrldyl test) <input checked="" type="checkbox"/> Gleyed or Low-Chroma (≤ 1) matrix <input type="checkbox"/> Matrix Chroma ≤ 2 with Redoximorphic Concentrations and/or Depletions	<input type="checkbox"/> Mn or Fe Concretions or Nodules <input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on National/Local Hydric Soils List <input type="checkbox"/> Other (explain below)

Hydric Soils Present?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
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Remarks:
 Shovel refusal at a depth of 13" due to the presence of cobbles.

WETLAND DETERMINATION :

Hydrophytic vegetation present?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
Wetland hydrology present?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
Hydric soils present?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Is the sampling point within a wetland? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO

Remarks:
 Data point is located within a roadside depression that was dry at the time of sampling but contained hydrophytic vegetation, which suggests that inundation is present for sufficient duration during the course of the year to support such vegetation.

Texture and Rock Fragment Content

Texture	Rock Fragments
cos - coarse sand	vfs1 - very fine sandy loam
s - sand	l - loam
fs - fine sand	sil - silt loam
vfs - very fine sand	si - silt
lcos - loamy coarse sand	scl - sandy clay loam
ls - loamy sand	cl - clay loam
lfs - loamy fine sand	sicl - silty clay loam
lvfs - loamy very fine sand	sc - sandy clay
cosl - coarse sandy loam	sic - silty clay
sl - sandy loam	c - clay
fs1 - fine sandy loam	

Redoximorphic Feature Morphology

Abundance	Type
f - few	Fe-x - iron concentration (soft mass)
c - common	Fe-nc - iron nodule or concretion
m - many	Mn-x - manganese concentration (soft mass)
	Mn-nc - manganese nodule or concretion
	d - depletion
Size	Location
1 - fine (<2mm)	mat - soil matrix
2 - medium 2-5mm)	ped - ped surface
3 - coarse (5-20mm)	por - soil pores
4 - very coarse (20-76mm)	otr - other
5 - extremely coarse (>76mm)	
Contrast	
f - faint	
d - distinct	
p - prominent	

DATA FORM
ROUTINE WETLAND DETERMINATION

Project/Site:	Kings Beach Commercial Core Improvement Project	State:	California
Applicant/Owner:	Placer County Department of Public Works	County:	Placer
Investigator(s):	C. Voigt, J. Cook	S/T/R	19/16N/18E
Date:	09/19/06		
Do normal circumstances exist on the site?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Community ID:	Ruderal
Is the site significantly disturbed (atypical situation)?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	Transect ID:	DW-6
Is the area a potential problem area?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	Plot ID:	DP-4
(If needed, explain below)			

VEGETATION

Dominant Plant Species	Strata	% Rel. Cover	Indicator	Associate Plant Species	Strata	% Rel. Cover	Indicator
<i>Elymus lanceolatus</i>	H	50	NI*				
<i>Elytrigia repens</i>	H	50	NI*				

Percent of dominants that are OBL, FACW, or FAC (excluding FAC-): 0% Total vegetation cover 50 %

<input type="checkbox"/> Morphological Adaptations	<input type="checkbox"/> Personal Knowledge of Regional Plant Communities
<input type="checkbox"/> Physiological/Reproductive Adaptations	<input type="checkbox"/> Technical Literature
<input type="checkbox"/> Visual Observation of Plant Species Growing in Areas of Prolonged Inundation/Saturation	<input type="checkbox"/> Other (explain below)

Hydrophytic Vegetation Present? ☐ YES ☒ NO

Remarks:

HYDROLOGY

Is it the growing season? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands
Based On: <input type="checkbox"/> Soil Temp (record) <input checked="" type="checkbox"/> Other (explain) <u>data from WRCC (2006)</u>	
Typical length: <u>130</u> Days 5% = <u>6.5</u> days	
Recorded Data (describe below): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> None Available	Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Rhizospheres in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain below)
Field Observations: Depth of Surface Water: <u>none</u> inches Depth to Standing Water in Pit: <u>>18</u> inches Depth to Saturated Soil: <u>>18</u> inches	
Wetland Hydrology Present? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
Remarks:	

SOILS

Plot ID: DP-4

Map Unit Name (series and phase): <u>Jabu stony sandy loam, mod. fine subsoil, variant, 2-9% slopes</u>					Drainage Class: <u>Well-drained</u>			
Taxonomy (subgroup): <u>Ultic Haploxeraalfs</u>					Field observations confirm mapped type? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			
Is data point located within a hydric inclusion? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO								
Profile Description								
Horizon	Depth (inches)	Texture	Structure	Matrix Color (moist)	Redoximorphic Features			Other
					Abundance, Size, Contrast	Type, location	Color (moist)	
	0-18	vgrs		10YR 3/2	none	---	---	

Hydric Soil Indicators (check all that apply):	
<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Reducing Conditions (α , α^1 dipyridyl test) <input type="checkbox"/> Gleyed or Low-Chroma (≤ 1) matrix <input type="checkbox"/> Matrix Chroma ≤ 2 with Redoximorphic Concentrations and/or Depletions	<input type="checkbox"/> Mn or Fe Concretions or Nodules <input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on National/Local Hydric Soils List <input type="checkbox"/> Other (explain below)

Hydric Soils Present?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
Remarks:	

WETLAND DETERMINATION :

Hydrophytic vegetation present?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
Wetland hydrology present?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
Hydric soils present?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	Is the sampling point within a wetland? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
Remarks:		

Texture and Rock Fragment Content

Texture	Rock Fragments
cos - coarse sand	vfs1 - very fine sandy loam
s - sand	l - loam
fs - fine sand	sil - silt loam
vfs - very fine sand	si - silt
lcos - loamy coarse sand	scl - sandy clay loam
ls - loamy sand	cl - clay loam
lfs - loamy fine sand	sicl - silty clay loam
lvfs - loamy very fine sand	sc - sandy clay
cosl - coarse sandy loam	sic - silty clay
sl - sandy loam	c - clay
fs1 - fine sandy loam	

Redoximorphic Feature Morphology

Abundance	Type
f - few	Fe-x - iron concentration (soft mass)
c - common	Fe-nc - iron nodule or concretion
m - many	Mn-x - manganese concentration (soft mass)
	Mn-nc - manganese nodule or concretion
	d - depletion
Size	Location
1 - fine (<2mm)	mat - soil matrix
2 - medium 2-5mm)	ped - ped surface
3 - coarse (5-20mm)	por - soil pores
4 - very coarse (20-76mm)	otr - other
5 - extremely coarse (>76mm)	
Contrast	
f - faint	
d - distinct	
p - prominent	



Project/Site:	Kings Beach Commercial Core Improvement Project	State:	California
Applicant/Owner:	Placer County Department of Public Works	County:	Placer
Investigator(s):	C. Voigt, J. Cook	S/T/R	19/16N/18E
Date:	09/19/06		
Do normal circumstances exist on the site?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Community ID:	Depressional Wetland
Is the site significantly disturbed (atypical situation)?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	Transect ID:	DW-2
Is the area a potential problem area?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	Plot ID:	DP-5
(If needed, explain below)			

VEGETATION

Dominant Plant Species	Strata	% Rel. Cover	Indicator	Associate Plant Species	Strata	% Rel. Cover	Indicator
<i>Scirpus americanus</i>	H	30	OBL				
<i>Eleocharis pauciflora</i>	H	70	OBL				
Percent of dominants that are OBL, FACW, or FAC (excluding FAC-):		100%		Total vegetation cover		80 %	
<input type="checkbox"/> Morphological Adaptations <input type="checkbox"/> Physiological/Reproductive Adaptations <input type="checkbox"/> Visual Observation of Plant Species Growing in Areas of Prolonged Inundation/Saturation				<input type="checkbox"/> Personal Knowledge of Regional Plant Communities <input type="checkbox"/> Technical Literature <input type="checkbox"/> Other (explain below)			
Hydrophytic Vegetation Present?		<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO					
Remarks:							

HYDROLOGY

Is it the growing season?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
Based On:	<input type="checkbox"/> Soil Temp (record)		
	<input checked="" type="checkbox"/> Other (explain)	data from WRCC (2006)	
Typical length:	130 Days	5% =	6.5 days
Recorded Data (describe below):			
<input type="checkbox"/> Stream, Lake, or Tide Gauge			
<input checked="" type="checkbox"/> Aerial Photographs			
<input type="checkbox"/> Other			
<input type="checkbox"/> None Available			
Field Observations:			
Depth of Surface Water:	none	inches	
Depth to Standing Water in Pit:	>18	inches	
Depth to Saturated Soil:	>18	inches	
Wetland Hydrology Present?		<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
Remarks:			

Wetland Hydrology Indicators:

Primary Indicators:

- ☐ Inundated
- ☐ Saturated Upper 12 Inches
- ☐ Water Marks
- ☐ Drift Lines
- ☐ Sediment Deposits
- ☒ Drainage Patterns in Wetlands

Secondary Indicators (2 or more required):

- ☐ Oxidized Rhizospheres in Upper 12 Inches
- ☐ Water-Stained Leaves
- ☐ Local Soil Survey Data
- ☐ FAC-Neutral Test
- ☐ Other (explain below)

SOILS

Plot ID: DP-5

Map Unit Name (series and phase): <u>Jabu stony sandy loam, mod. fine subsoil, variant, 2-9% slopes</u>					Drainage Class: <u>Well-drained</u>			
Taxonomy (subgroup): <u>Ultic Haploxeraalfs</u>					Field observations confirm mapped type? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			
Is data point located within a hydric inclusion? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO								
Profile Description								
Horizon	Depth (inches)	Texture	Structure	Matrix Color (moist)	Redoximorphic Features			Other
					Abundance, Size, Contrast	Type, location	Color (moist)	
	0-4	sil		10YR 3/2	none	---	---	
	4-18	sl		10YR 4/4	c,3,p	Fe-x, mat	5YR 3/4	
Hydric Soil Indicators (check all that apply):								
<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Reducing Conditions (α , α^1 dipyrldyl test) <input type="checkbox"/> Gleyed or Low-Chroma (≤ 1) matrix <input type="checkbox"/> Matrix Chroma ≤ 2 with Redoximorphic Concentrations and/or Depletions					<input type="checkbox"/> Mn or Fe Concretions or Nodules <input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on National/Local Hydric Soils List <input checked="" type="checkbox"/> Other (explain below)			
Hydric Soils Present? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO								
Remarks: The vegetation is strongly hydrophytic and the area sampled by this data point appears to have wetland hydrology. The lack of a conventional positive indicator for hydric soils is likely due to disturbance associated with the relatively recent conversion from the naturally occurring habitat (Ponderosa pine woodland) to a wetland. Over time, the regime of inundation experienced during the winter and spring as a result of snowmelt should be conducive to creating an anaerobic environment that will likely lead to the development of redoximorphic concentrations in the soils.								

WETLAND DETERMINATION :

Hydrophytic vegetation present?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
Wetland hydrology present?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
Hydric soils present?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Is the sampling point within a wetland? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
Remarks: Data point is located within a sediment catchment basin with an input (culvert) and output (overflow drain).		

Texture and Rock Fragment Content

Texture	Rock Fragments
cos - coarse sand	vfs1 - very fine sandy loam
s - sand	l - loam
fs - fine sand	sil - silt loam
vfs - very fine sand	si - silt
lcos - loamy coarse sand	scl - sandy clay loam
ls - loamy sand	cl - clay loam
lfs - loamy fine sand	sicl - silty clay loam
lvfs - loamy very fine sand	sc - sandy clay
cosl - coarse sandy loam	sic - silty clay
sl - sandy loam	c - clay
fs1 - fine sandy loam	

Redoximorphic Feature Morphology

Abundance	Type
f - few	Fe-x - iron concentration (soft mass)
c - common	Fe-nc - iron nodule or concretion
m - many	Mn-x - manganese concentration (soft mass)
	Mn-nc - manganese nodule or concretion
	d - depletion
Size	Location
1 - fine (<2mm)	mat - soil matrix
2 - medium 2-5mm)	ped - ped surface
3 - coarse (5-20mm)	por - soil pores
4 - very coarse (20-76mm)	otr - other
5 - extremely coarse (>76mm)	
Contrast	
f - faint	
d - distinct	
p - prominent	

DATA FORM
ROUTINE WETLAND DETERMINATION

Project/Site:	Kings Beach Commercial Core Improvement Project	State:	California
Applicant/Owner:	Placer County Department of Public Works	County:	Placer
Investigator(s):	C. Voigt, J. Cook	S/T/R	19/16N/18E
Date:	09/19/06		
Do normal circumstances exist on the site?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Community ID:	Ponderosa pine woodland
Is the site significantly disturbed (atypical situation)?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	Transect ID:	DW-2
Is the area a potential problem area?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	Plot ID:	DP-6
(If needed, explain below)			

VEGETATION

Dominant Plant Species	Strata	% Rel. Cover	Indicator	Associate Plant Species	Strata	% Rel. Cover	Indicator
<i>Grindelia camporum</i>	H	30	FACU	<i>Aster eatonii</i>	H	10	FAC
<i>Melica fugax</i>	H	30	NL				
<i>Aira caryophylla</i>	H	30	NL				

Percent of dominants that are OBL, FACW, or FAC (excluding FAC-): 0% Total vegetation cover 75 %

<input type="checkbox"/> Morphological Adaptations	<input type="checkbox"/> Personal Knowledge of Regional Plant Communities
<input type="checkbox"/> Physiological/Reproductive Adaptations	<input type="checkbox"/> Technical Literature
<input type="checkbox"/> Visual Observation of Plant Species Growing in Areas of Prolonged Inundation/Saturation	<input type="checkbox"/> Other (explain below)

Hydrophytic Vegetation Present? ☐ YES ☒ NO

Remarks:

HYDROLOGY

Is it the growing season? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands
Based On: <input type="checkbox"/> Soil Temp (record) <input checked="" type="checkbox"/> Other (explain) <u>data from WRCC (2006)</u>	
Typical length: <u>130</u> Days 5% = <u>6.5</u> days	
Recorded Data (describe below): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> None Available	Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Rhizospheres in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain below)
Field Observations: Depth of Surface Water: <u>none</u> inches Depth to Standing Water in Pit: <u>>12</u> inches Depth to Saturated Soil: <u>>12</u> inches	
Wetland Hydrology Present? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
Remarks:	

SOILS

Plot ID: DP-6

Map Unit Name (series and phase): <u>Jabu stony sandy loam, mod. fine subsoil, variant, 2-9% slopes</u>					Drainage Class: <u>Well-drained</u>			
Taxonomy (subgroup): <u>Ultic Haploxeralfs</u>					Field observations confirm mapped type? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			
Is data point located within a hydric inclusion? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO								
Profile Description								
Horizon	Depth (inches)	Texture	Structure	Matrix Color (moist)	Redoximorphic Features			Other
					Abundance, Size, Contrast	Type, location	Color (moist)	
	0-12	grsl		7.5YR 4/4	none	---	---	

Hydric Soil Indicators (check all that apply):

<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Reducing Conditions (α , α' - dipyrldyl test) <input type="checkbox"/> Gleyed or Low-Chroma (≤ 1) matrix <input type="checkbox"/> Matrix Chroma ≤ 2 with Redoximorphic Concentrations and/or Depletions	<input type="checkbox"/> Mn or Fe Concretions or Nodules <input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on National/Local Hydric Soils List <input checked="" type="checkbox"/> Other (explain below)
--	--

Hydric Soils Present? ☐ YES ☒ NO

Remarks:
Shovel refusal at a depth of 12" due to gravel and cobbles.

WETLAND DETERMINATION :

Hydrophytic vegetation present?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
Wetland hydrology present?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
Hydric soils present?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	Is the sampling point within a wetland? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
Remarks:		

Texture and Rock Fragment Content

Texture	Rock Fragments
cos - coarse sand	vfsl - very fine sandy loam
s - sand	l - loam
fs - fine sand	sil - silt loam
vfs - very fine sand	si - silt
lcos - loamy coarse sand	scl - sandy clay loam
ls - loamy sand	cl - clay loam
lfs - loamy fine sand	sicl - silty clay loam
lvfs - loamy very fine sand	sc - sandy clay
cosl - coarse sandy loam	sic - silty clay
sl - sandy loam	c - clay
fsl - fine sandy loam	

Redoximorphic Feature Morphology

Abundance	Type
f - few	Fe-x - iron concentration (soft mass)
c - common	Fe-nc - iron nodule or concretion
m - many	Mn-x - manganese concentration (soft mass)
	Mn-nc - manganese nodule or concretion
	d - depletion
Size	Location
1 - fine (<2mm)	mat - soil matrix
2 - medium 2–5mm)	ped - ped surface
3 - coarse (5–20mm)	por - soil pores
4 - very coarse (20–76mm)	otr - other
5 - extremely coarse (>76mm)	
Contrast	
f - faint	
d - distinct	
p - prominent	



Project/Site:	Kings Beach Commercial Core Improvement Project	State:	California
Applicant/Owner:	Placer County Department of Public Works	County:	Placer
Investigator(s):	C. Voigt, J. Cook	S/T/R	19/16N/18E
Date:	09/20/06		
Do normal circumstances exist on the site?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Community ID:	Depressional Wetland
Is the site significantly disturbed (atypical situation)?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	Transect ID:	DW-4
Is the area a potential problem area?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	Plot ID:	DP-7
(If needed, explain below)			

VEGETATION

Dominant Plant Species	Strata	% Rel. Cover	Indicator	Associate Plant Species	Strata	% Rel. Cover	Indicator
<i>Juncus balticus</i>	H	35	OBL				
<i>Eleocharis pauciflora</i>	H	20	OBL				
<i>Leymus triticoides</i>	H	25	FAC+				
<i>Aira caryophylla</i>	H	20	NL				

Percent of dominants that are OBL, FACW, or FAC (excluding FAC-): 75% Total vegetation cover 60 %

<input type="checkbox"/> Morphological Adaptations	<input type="checkbox"/> Personal Knowledge of Regional Plant Communities
<input type="checkbox"/> Physiological/Reproductive Adaptations	<input type="checkbox"/> Technical Literature
<input type="checkbox"/> Visual Observation of Plant Species Growing in Areas of Prolonged Inundation/Saturation	<input type="checkbox"/> Other (explain below)

Hydrophytic Vegetation Present? ☒ YES ☐ NO

Remarks:

HYDROLOGY

Is it the growing season? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	Wetland Hydrology Indicators: Primary Indicators: <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input checked="" type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands
Based On: <input type="checkbox"/> Soil Temp (record) <input checked="" type="checkbox"/> Other (explain) <u>data from WRCC (2006)</u>	
Typical length: <u>130</u> Days 5% = <u>6.5</u> days	
Recorded Data (describe below): <input type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> None Available	Secondary Indicators (2 or more required): <input type="checkbox"/> Oxidized Rhizospheres in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain below)
Field Observations: Depth of Surface Water: <u>none</u> inches Depth to Standing Water in Pit: <u>>12</u> inches Depth to Saturated Soil: <u>>12</u> inches	
Wetland Hydrology Present? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
Remarks:	

SOILS

Plot ID: DP-7

Map Unit Name (series and phase): <u>Jabu stony sandy loam, mod. fine subsoil, variant, 2-9% slopes</u>					Drainage Class: _____			
Taxonomy (subgroup): <u>Ultic Haploxeraalfs</u>					Field observations confirm mapped type? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			
Is data point located within a hydric inclusion? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO								
Profile Description								
Horizon	Depth (inches)	Texture	Structure	Matrix Color (moist)	Redoximorphic Features			Other
					Abundance, Size, Contrast	Type, location	Color (moist)	
	0-1	sil		10YR 3/2	none	---	---	
	1-12	vgrsl		10YR 3/3	none	---	---	
Hydric Soil Indicators (check all that apply):								
<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Reducing Conditions (α , α^1 dipyrldyl test) <input type="checkbox"/> Gleyed or Low-Chroma (≤ 1) matrix <input type="checkbox"/> Matrix Chroma ≤ 2 with Redoximorphic Concentrations and/or Depletions					<input type="checkbox"/> Mn or Fe Concretions or Nodules <input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on National/Local Hydric Soils List <input checked="" type="checkbox"/> Other (explain below)			
Hydric Soils Present? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO								
Remarks: The vegetation is strongly hydrophytic and the area sampled by this data point appears to have wetland hydrology. The lack of a conventional positive indicator for hydric soils is likely due to disturbance associated with the relatively recent conversion from the naturally occurring habitat (Ponderosa pine woodland) to a wetland. Over time, the regime of inundation experienced during the winter and spring as a result of snowmelt should be conducive to creating an anaerobic environment that will likely lead to the development of redoximorphic concentrations in the soils.								

WETLAND DETERMINATION :

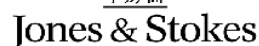
Hydrophytic vegetation present?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
Wetland hydrology present?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
Hydric soils present?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Is the sampling point within a wetland? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
Remarks: Data point is located within a sediment detention basin with an input (culvert) at the north end of the basin and an output (overflow drain) at the south end of the basin.		

Texture and Rock Fragment Content

Texture	Rock Fragments
cos - coarse sand	vfs1 - very fine sandy loam
s - sand	l - loam
fs - fine sand	sil - silt loam
vfs - very fine sand	si - silt
lcos - loamy coarse sand	scl - sandy clay loam
ls - loamy sand	cl - clay loam
lfs - loamy fine sand	sicl - silty clay loam
lvfs - loamy very fine sand	sc - sandy clay
cosl - coarse sandy loam	sic - silty clay
sl - sandy loam	c - clay
fs1 - fine sandy loam	

Redoximorphic Feature Morphology

Abundance	Type
f - few	Fe-x - iron concentration (soft mass)
c - common	Fe-nc - iron nodule or concretion
m - many	Mn-x - manganese concentration (soft mass)
	Mn-nc - manganese nodule or concretion
	d - depletion
Size	Location
1 - fine (<2mm)	mat - soil matrix
2 - medium 2-5mm)	ped - ped surface
3 - coarse (5-20mm)	por - soil pores
4 - very coarse (20-76mm)	otr - other
5 - extremely coarse (>76mm)	
Contrast	
f - faint	
d - distinct	
p - prominent	



Project/Site:	Kings Beach Commercial Core Improvement Project		State:	California
Applicant/Owner:	Placer County Department of Public Works		County:	Placer
Investigator(s):	C. Voigt, J. Cook		S/T/R	19/16N/18E
Date:	09/20/06			
Do normal circumstances exist on the site?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	Community ID:	Ruderal
Is the site significantly disturbed (atypical situation)?	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	Transect ID:	DW-4
Is the area a potential problem area?	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	Plot ID:	DP-8
(If needed, explain below)				

Dominant Plant Species	Strata	% Rel. Cover	Indicator	Associate Plant Species	Strata	% Rel. Cover	Indicator
<i>Elytrigia repens</i>	H	100	NI*				
Percent of dominants that are OBL, FACW, or FAC (excluding FAC-):				0%	Total vegetation cover		75%
<input type="checkbox"/> Morphological Adaptations <input type="checkbox"/> Physiological/Reproductive Adaptations <input type="checkbox"/> Visual Observation of Plant Species Growing in Areas of Prolonged Inundation/Saturation				<input type="checkbox"/> Personal Knowledge of Regional Plant Communities <input type="checkbox"/> Technical Literature <input type="checkbox"/> Other (explain below)			
Hydrophytic Vegetation Present?		<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO					
Remarks:							

Is it the growing season? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		Wetland Hydrology Indicators:										
Based On: <input type="checkbox"/> Soil Temp (record)	Other (explain) <u>data from WRCC (2006)</u>		Primary Indicators: <ul style="list-style-type: none"> <input type="checkbox"/> Inundated <input type="checkbox"/> Saturated Upper 12 Inches <input type="checkbox"/> Water Marks <input type="checkbox"/> Drift Lines <input type="checkbox"/> Sediment Deposits <input type="checkbox"/> Drainage Patterns in Wetlands 									
Typical length: <u>130</u> Days 5% = <u>6.5 days</u>												
Recorded Data (describe below): <ul style="list-style-type: none"> <input type="checkbox"/> Stream, Lake, or Tide Gauge <input checked="" type="checkbox"/> Aerial Photographs <input type="checkbox"/> Other <input type="checkbox"/> None Available 		Secondary Indicators (2 or more required): <ul style="list-style-type: none"> <input type="checkbox"/> Oxidized Rhizospheres in Upper 12 Inches <input type="checkbox"/> Water-Stained Leaves <input type="checkbox"/> Local Soil Survey Data <input type="checkbox"/> FAC-Neutral Test <input type="checkbox"/> Other (explain below) 										
Field Observations: <table border="0" style="width: 100%;"> <tr> <td style="width: 60%;">Depth of Surface Water:</td> <td style="width: 20%; text-align: center;"><u>none</u></td> <td style="width: 20%;">inches</td> </tr> <tr> <td>Depth to Standing Water in Pit:</td> <td style="text-align: center;"><u>>10</u></td> <td>inches</td> </tr> <tr> <td>Depth to Saturated Soil:</td> <td style="text-align: center;"><u>>10</u></td> <td>inches</td> </tr> </table>		Depth of Surface Water:	<u>none</u>	inches	Depth to Standing Water in Pit:	<u>>10</u>	inches	Depth to Saturated Soil:	<u>>10</u>	inches		
Depth of Surface Water:	<u>none</u>	inches										
Depth to Standing Water in Pit:	<u>>10</u>	inches										
Depth to Saturated Soil:	<u>>10</u>	inches										
Wetland Hydrology Present? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO												
Remarks:												

SOILS

Plot ID: DP-8

Map Unit Name (series and phase): <u>Jabu stony sandy loam, mod. fine subsoil, variant, 2-9% slopes</u>					Drainage Class: <u>Well-drained</u>			
Taxonomy (subgroup): <u>Ultic Haploxeraalfs</u>					Field observations confirm mapped type? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			
Is data point located within a hydric inclusion? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO								
Profile Description								
Horizon	Depth (inches)	Texture	Structure	Matrix Color (moist)	Redoximorphic Features			Other
					Abundance, Size, Contrast	Type, location	Color (moist)	
	0-10	xgrsl		10YR 3/3	none	---	---	

Hydric Soil Indicators (check all that apply):	
<input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Reducing Conditions (α , α^1 dipyrldyl test) <input type="checkbox"/> Gleyed or Low-Chroma (≤ 1) matrix <input type="checkbox"/> Matrix Chroma ≤ 2 with Redoximorphic Concentrations and/or Depletions	<input type="checkbox"/> Mn or Fe Concretions or Nodules <input type="checkbox"/> High Organic Content in Surface Layer of Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input type="checkbox"/> Listed on National/Local Hydric Soils List <input type="checkbox"/> Other (explain below)

Hydric Soils Present?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
-----------------------	---

Remarks:
 Shovel refusal at a depth of 10" due to gravel and cobbles.

WETLAND DETERMINATION :

Hydrophytic vegetation present?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
Wetland hydrology present?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
Hydric soils present?	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	Is the sampling point within a wetland? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO

Remarks:

Texture and Rock Fragment Content

Texture	Rock Fragments
cos - coarse sand	vfs1 - very fine sandy loam
s - sand	l - loam
fs - fine sand	sil - silt loam
vfs - very fine sand	si - silt
lcos - loamy coarse sand	scl - sandy clay loam
ls - loamy sand	cl - clay loam
lfs - loamy fine sand	sicl - silty clay loam
lvfs - loamy very fine sand	sc - sandy clay
cosl - coarse sandy loam	sic - silty clay
sl - sandy loam	c - clay
fs1 - fine sandy loam	

Redoximorphic Feature Morphology

Abundance	Type
f - few	Fe-x - iron concentration (soft mass)
c - common	Fe-nc - iron nodule or concretion
m - many	Mn-x - manganese concentration (soft mass)
	Mn-nc - manganese nodule or concretion
	d - depletion
Size	Location
1 - fine (<2mm)	mat - soil matrix
2 - medium 2-5mm)	ped - ped surface
3 - coarse (5-20mm)	por - soil pores
4 - very coarse (20-76mm)	otr - other
5 - extremely coarse (>76mm)	
Contrast	
f - faint	
d - distinct	
p - prominent	

Appendix B Species List

Appendix B. Plant Species Observed in Delineation Study Area

Scientific Name	Common Name	Indicator Status ^a
<i>Abies concolor</i>	White fir	NI
<i>Aira caryophyllea</i>	Silver hairgrass	NI
<i>Alnus incana</i> ssp. <i>tenuifolia</i>	Mountain alder	NI
<i>Arrhenatherum elatius</i>	Tall oatgrass	FACU
<i>Arctostaphylos</i> sp.	Manzanita	NA
<i>Artemisia douglasiana</i>	Mugwort	FACW
<i>Aster eatonii</i>	Eaton's aster	FAC
<i>Calocedrus decurrens</i>	Incense cedar	NI
<i>Carex amplifolia</i>	Big-leaf sedge	OBL
<i>Cornus sericea</i> ssp. <i>sericea</i> [<i>Cornus stolonifera</i>]	American dogwood	FACW
<i>Dactylis glomerata</i>	Orchard grass	FACU
<i>Deschampsia danthonioides</i>	Annual hairgrass	FACW
<i>Eleocharis pauciflora</i>	Fewflower spikerush	OBL
<i>Elymus elymoides</i> [<i>Sitanion hystrix</i>]	Squirreltail	FACU-
<i>Elymus lanceolatus</i> ssp. <i>lanceolatus</i> [<i>Agropyron dasystachyum</i>]	Thickspike wheatgrass	NI
<i>Elytrigia repens</i> [<i>Agropyron repens</i>]	Quackgrass	NI
<i>Equisetum hymemale</i>	Common scouring rush	FACW
<i>Grindelia camporum</i>	Common gumplant	FACU
<i>Juncus balticus</i>	Baltic rush	OBL
<i>Juncus macrandus</i>	Long-anthered rush	OBL
<i>Juncus mexicanus</i>	Mexican rush	FACW
<i>Juncus xiphioides</i>	Iris-leaved rush	OBL
<i>Lepidium campestre</i>	English pepper grass	NI
<i>Leymus triticoides</i> [<i>Elymus triticoides</i>]	Creeping wild-rye	FAC+
<i>Lotus corniculatus</i>	Birdsfoot trefoil	FAC
<i>Lupinus latifolius</i>	Broad-leaf lupine	NI
<i>Melica fugax</i>	Small oniongrass	NI
<i>Pinus jeffreyi</i>	Jeffrey pine	NI
<i>Pinus ponderosa</i>	Ponderosa pine	FACU
<i>Polygonum douglasii</i>	Douglas' knotweed	FACU
<i>Populus balsamifera</i> ssp. <i>trichocarpa</i>	Black cottonwood	FACW
<i>Populus tremuloides</i> [<i>Populus tremula</i>]	Quaking aspen	FAC+
<i>Rosa woodsii</i> var. <i>ultramontana</i>	Mountain Rose	FAC-
<i>Rubus parviflorus</i>	Thimbleberry	FAC+
<i>Salix lucida</i> var. <i>lasiandra</i>	Pacific willow	NI
<i>Salix lutea</i>	Yellow willow	OBL
<i>Scirpus americanus</i>	American bulrush	OBL
<i>Scirpus microcarpus</i>	Small-fruited bulrush	OBL
<i>Tanacetum vulgare</i>	Common tansy	NI

^aWetland indicator status obtained from Reed (1988).

Appendix C Representative Photographs



Depressional Wetland #1



Depressional Wetland #2

06676.06.001 (10/06)



Depressional Wetland #3



Depressional Wetland #4

06676.06.001 (10/06)



Depressional Wetland #5



Depressional Wetland #6

06676.06.001 (10/06)



Depressional Wetland #7



Intermittent Drainage Photo #1



Intermittent Drainage Photo #2

06676.06 004 (10/06)



Intermittent Drainage Photo #3



Intermittent Drainage Photo #4

06676.06 004 (10/06)



SP-1a Griff Creek



SP-1b Griff Creek

06676.06 004 (1/0/06)



SP-1b Oxbow Bend

06676.06.004 (10/06)

U.S. Army Corps of Engineers
Verification Letter



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, SACRAMENTO
CORPS OF ENGINEERS
1325 J STREET
SACRAMENTO, CALIFORNIA 95814-2922

February 26, 2007

Regulatory Branch (200600998)

Dan LaPlante
Placer County Department of Public Works
Pioneer Commerce Center
10825 Pioneer Trail
Suite 105
Truckee, California 96161

Dear Mr. LaPlante:

We are responding to your consultant's request for an approved jurisdictional determination for the Kings Beach Commercial Core Improvement project. This approximately 74.8-acre site is located adjacent to Lake Tahoe in Sections 13 and 19 on the Kings Beach 7.5 minute USGS quadrangle, Placer County, California.

Based on available information, we concur with the estimate of waters of the United States, as depicted on the October 2006 maps ("Exhibit A", sheets 1, 2 and 3; enclosed) prepared by Jones and Stokes. Approximately 0.719 acres of waters of the United States, including wetlands, are present within the survey area. These waters are regulated under Section 404 of the Clean Water Act. In addition, Lake Tahoe is regulated under Section 10 of the Rivers and Harbors Act. Lake Tahoe is a navigable waterway and the other features are either tributary to the Lake, or adjacent to a tributary.

This verification is valid for five years from the date of this letter, unless new information warrants revision of the determination before the expiration date. This letter contains an approved jurisdictional determination for your subject site. If you object to this determination, you may request an administrative appeal under Corps regulations at 33 CFR Part 331. Enclosed you will find a Notification of Appeal Process (NAP) fact sheet and Request for Appeal (RFA) form. If you request to appeal this determination you must submit a completed RFA form to the South Pacific Division Office at the following address: Doug Pomeroy, Administrative Appeal Review Officer, Army Corps of Engineers, South Pacific Division, CESP-D-PDS-O, 333 Market Street, Room 923, San Francisco, California 94105-2195, Telephone: 415-977-8035 FAX: 415-977-8129.

In order for an RFA to be accepted by the Corps, the Corps must determine that it is complete, that it meets the criteria for appeal under 33 CFR Part 331.5, and that it has been received by the Division Office within 60 days of the NAP. Should you decide to submit an RFA form, it must be received at the above address by May 21, 2007. It is not necessary to submit an RFA form to the Division Office if you do not object to the determination in this letter.

You should provide a copy of this letter and notice to all other affected parties, including any individual who has an identifiable and substantial legal interest in the property. s request.

Please refer to identification number 200600998 in any correspondence concerning this project. If you have any questions, please contact Ms. Kathleen Dadey at our Nevada Regulatory Office, C. Clifton Young Federal Building, 300 Booth Street, Room 2103, Reno, Nevada 89509-1361, email kathleen.a.dadey@usace.army.mil, or telephone 775-784-5305. You may also find additional information on our website: www.spk.usace.army.mil/regulatory.html.

Sincerely,

ORIGINAL
SIGNED BY

Ms. Kathleen Dadey
Acting Office Chief Reno Office

Enclosure(s)

Copy furnished without enclosure(s):

✓ Scott Frazier, Jones & Stokes, 2600 V Street, Sacramento, California 95818-1914
Mary Fiore-Wagner, California Regional Water Quality Control Board, Lahontan Region,
2501 Lake Tahoe Boulevard, South Lake Tahoe, California 96150-7747
Tobi Tyler, California Regional Water Quality Control Board, Lahontan Region, 2501 Lake
Tahoe Blvd., South Lake Tahoe, California 96150-7747
U.S. Fish and Wildlife Service, Wetlands Branch, 2800 Cottage Way, Suite W2605,
Sacramento, California 95825-3901
U.S. Fish and Wildlife Service, Endangered Species Division, 2800 Cottage Way, Suite
W2605, Sacramento, California 95825-3901
Mary Hays, California State Lands Commission, 100 Howe Ave., Ste. 100 South,
Sacramento, California 95825-8202